

Makrolon® 1205

Covestro - Polycarbonates - *Polycarbonate*

General Information

Product Description

Formerly Makrolon KU1-1205; MVR (300 °C/1.2 kg) 6.0 cm³/10 min; flame retardant; high viscosity; extrusion; solid sheet; aircraft construction; automotive construction; railway construction

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Additive	• Flame Retardant		
Features	• Flame Retardant	• High Viscosity	
Uses	• Aircraft Applications	• Automotive Applications	• Rail Applications
Forms	• Sheet		
Processing Method	• Extrusion		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.29	g/cm ³	ISO 1183
Apparent (Bulk) Density ²	0.64	g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	6.5	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	6.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow	0.60 to 0.80	%	
Flow	0.60 to 0.80	%	
Water Absorption (Saturation, 73°F)	0.24	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	341000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	7250	psi	ISO 527-2/5
Tensile Stress (Break, 73°F)	10200	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	6.5	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	130	%	ISO 527-2/50
Nominal Tensile Strain at Break (73°F)	> 50	%	ISO 527-2/50
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength			ISO 179/1eU
-76°F	No Break		
-22°F	No Break		
73°F	No Break		
Notched Izod Impact Strength ³			
Complete Break	7.1	ft·lb/in ²	ISO 180/1A
73°F, Partial Break	31	ft·lb/in ²	ISO 180/A
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-22°F	51.6	ft·lb	
73°F	47.9	ft·lb	
Multi-Axial Instrumented Impact Peak Force			ISO 6603-2
-22°F	1510	lbf	
73°F	1300	lbf	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	284	°F	ISO 75-2/B



Deflection Temperature Under Load (264 psi, Unannealed)	257 °F	ISO 75-2/A
Vicat Softening Temperature	297 °F	ISO 306/B50
CLTE - Flow (73 to 131°F)	3.9E-5 in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	3.9E-5 in/in/°F	ISO 11359-2
Flammability	Nominal Value Unit	Test Method
Glow Wire Flammability Index		IEC 60695-2-12
0.08 in	1760 °F	
0.12 in	1760 °F	
Vertical Bunsen Burner Test		
1.0mm/12 s	passed	FAR 25.853(b)
1.0mm/60 s	passed	FAR 25.853(a)
1.5mm/12 s	passed	FAR 25.853(b)
1.5mm/60 s	passed	FAR 25.853(a)

Notes

¹ Typical properties: these are not to be construed as specifications.

² Pellets

³ 3 mm

